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Lochridge

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[54] **TRASH RECEPTACLE WITH BAG RETAINER**

[76] Inventor: **Jeffrey L. Lochridge,** 1175 N. 4000 W., Rexburg, Id. 83440

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[51] **Int. Cl.**[6] **B65D 7/04**

[52] **U.S. Cl.** **220/404**; 220/908

[58] **Field of Search** 220/404, 403, 402, 908, 220/625

[56] **References Cited**

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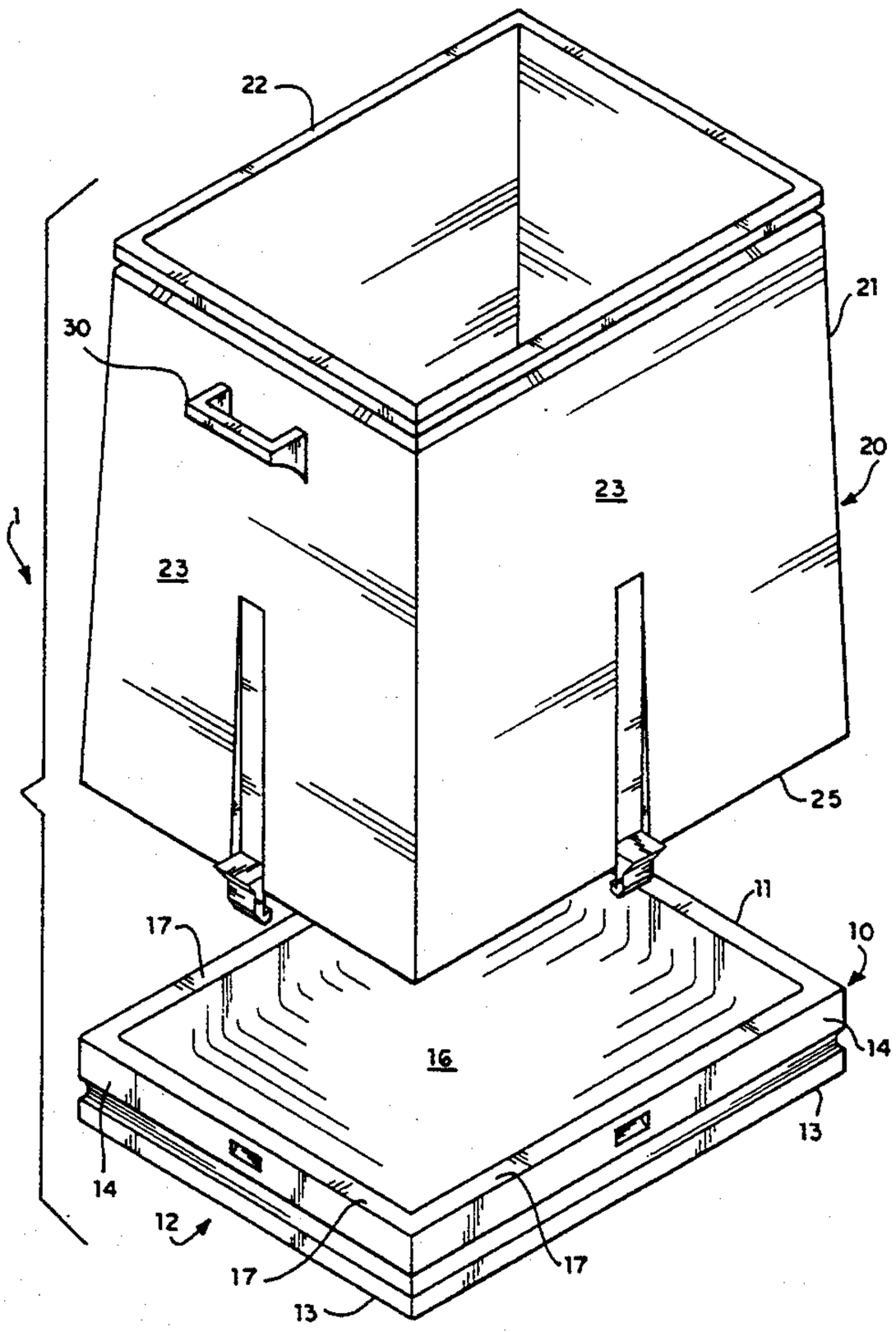
Primary Examiner—Steven M. Pollard
Attorney, Agent, or Firm—Richard C. Litman

[57] **ABSTRACT**

A trash receptacle for use with a trash bag liner is disclosed. The trash receptacle includes a sleeve, a base member, and latches which secure the base member to the sleeve member. The sleeve member has a open ended box-like body with an upper edge and inversely tapered sidewalls that extend downwardly from the upper edge to terminate in a lower edge. The base member has a floor with a walls extending from the perimeter of the floor to define an enclosed area. The base member has a rectangular cross section conforming to that of the sleeve, allowing the sleeve to rest and fit on the base member. In an alternative embodiment, the cross section of the base member is circular and the sleeve has an inverse, frusto-conical configuration.

7 Claims, 4 Drawing Sheets



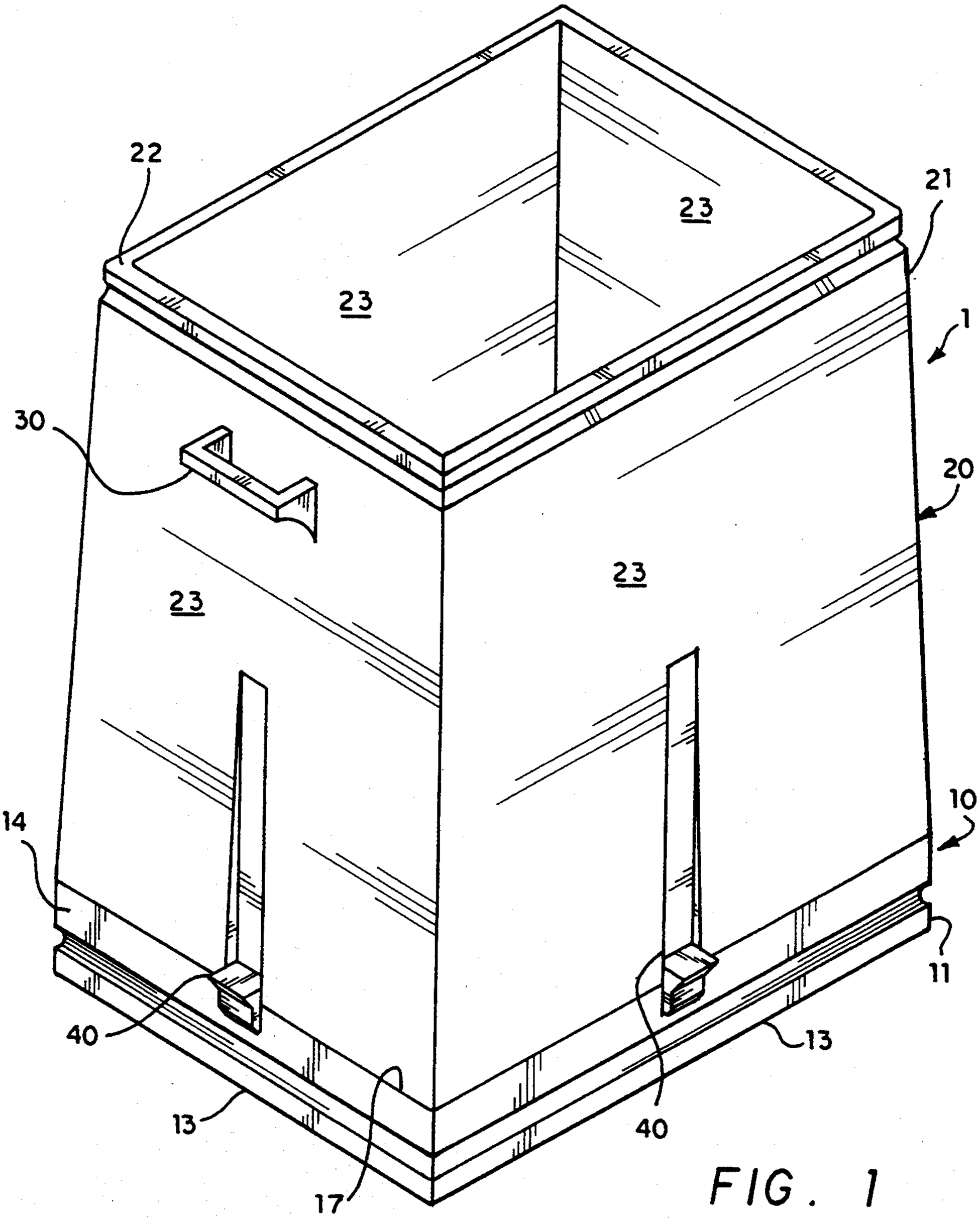


FIG. 1

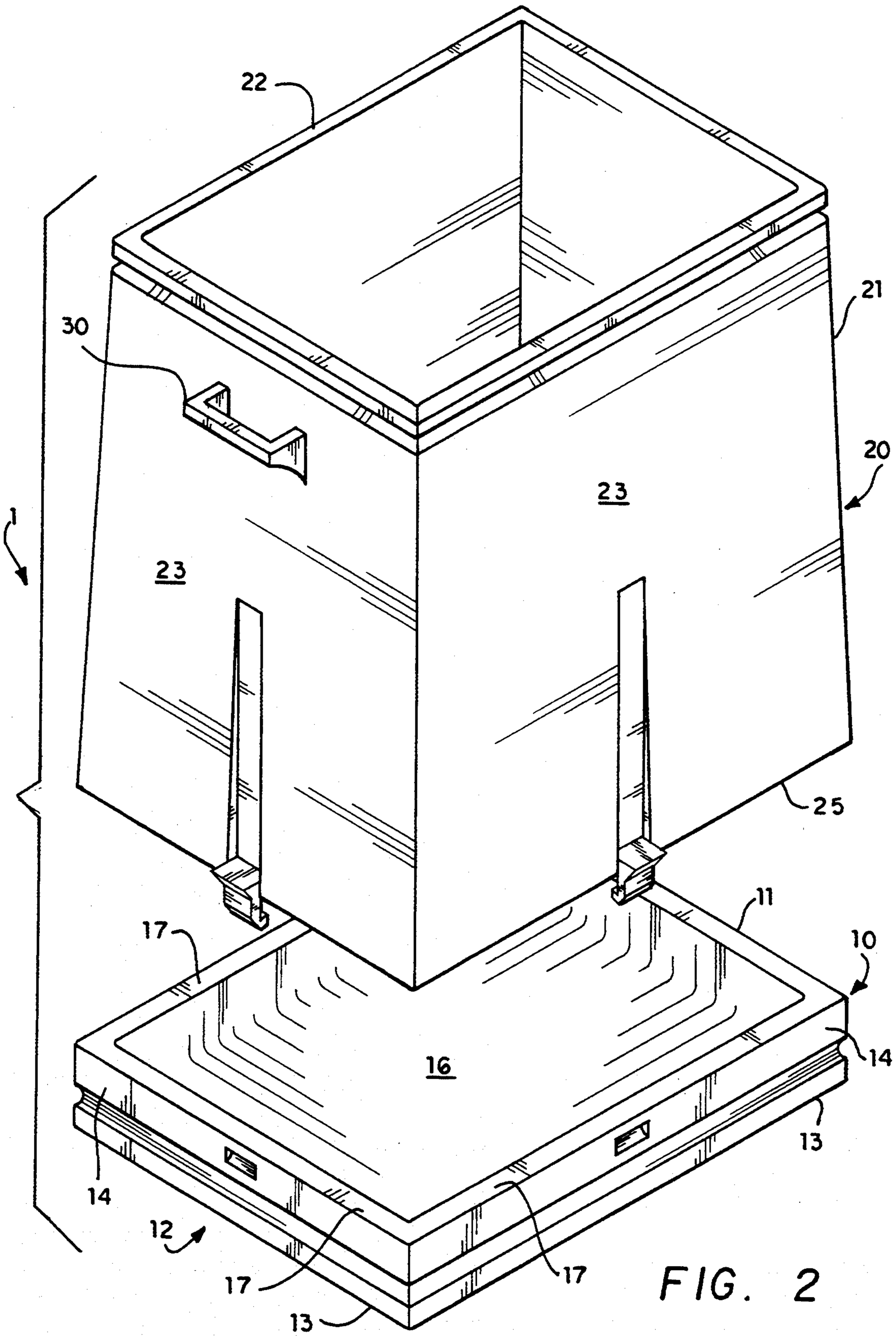


FIG. 2

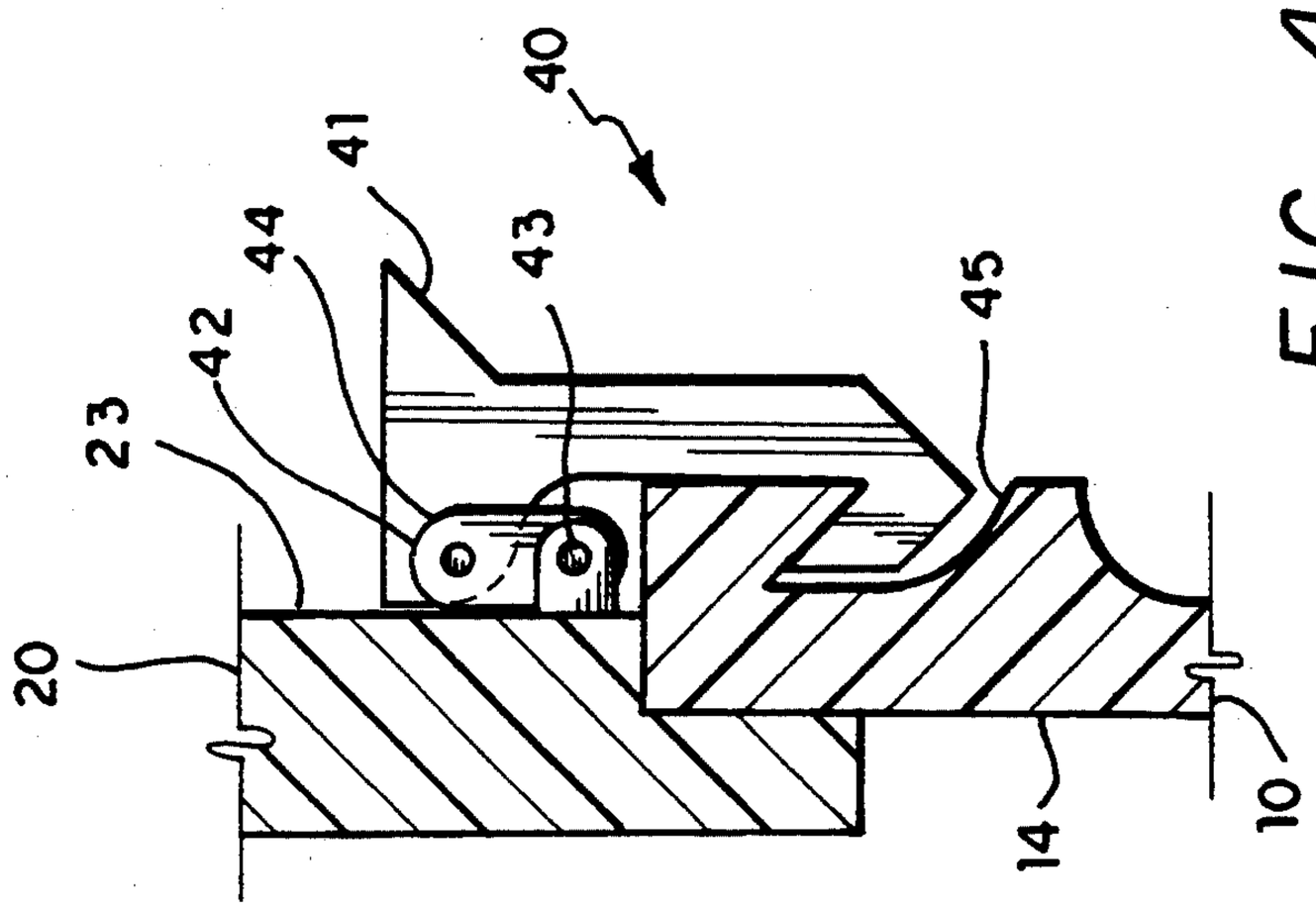


FIG. 4

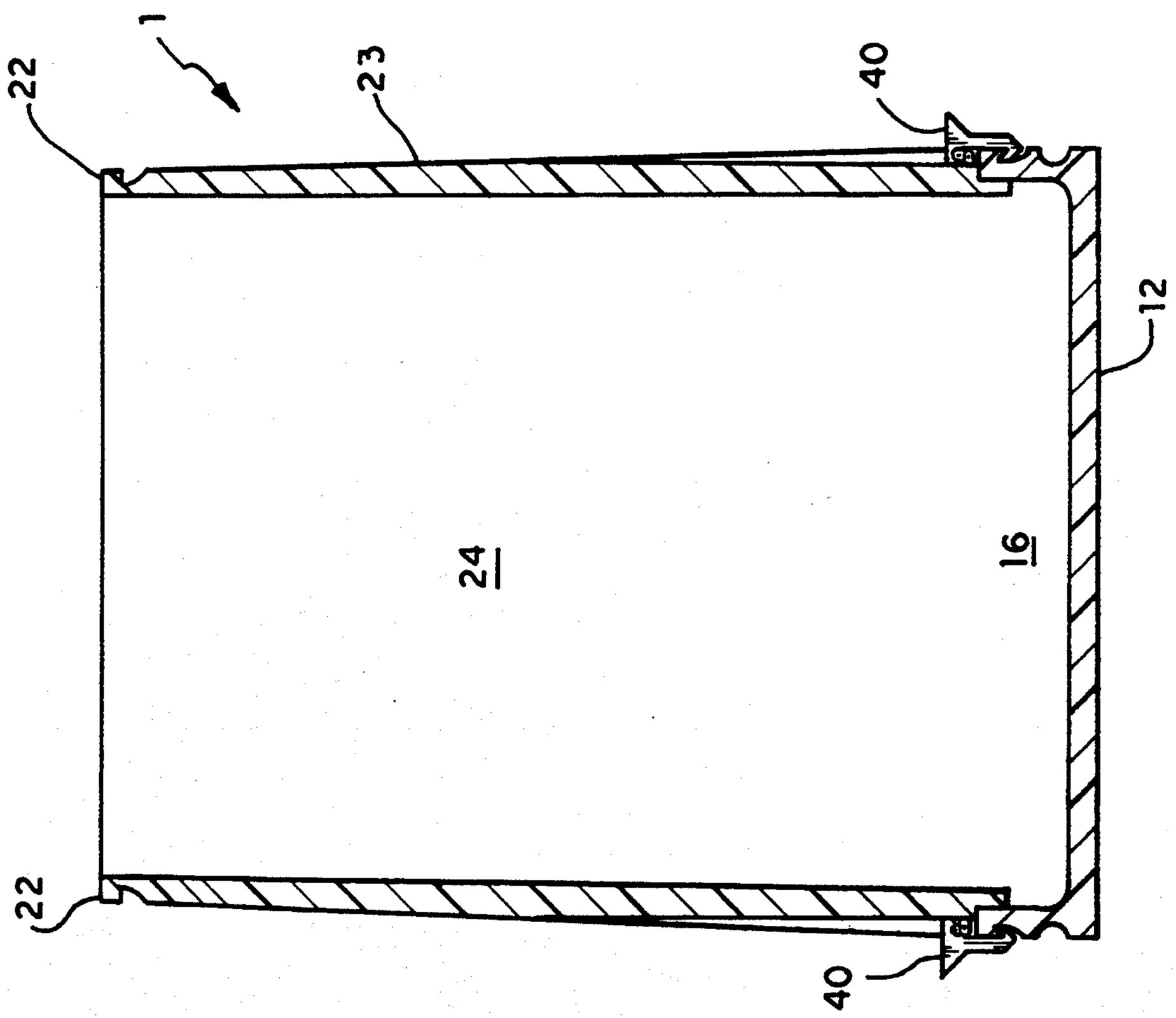
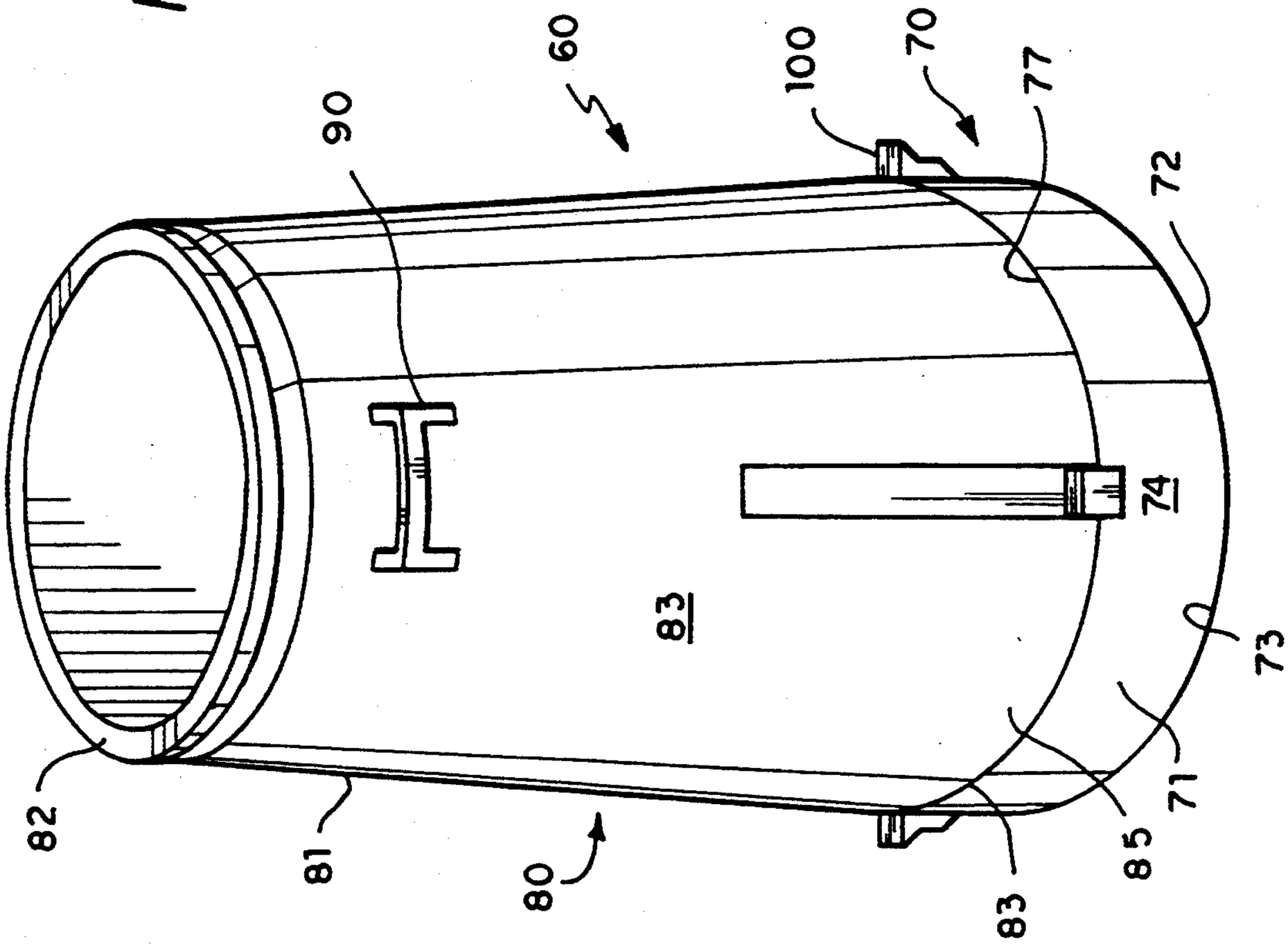


FIG. 3

FIG. 6



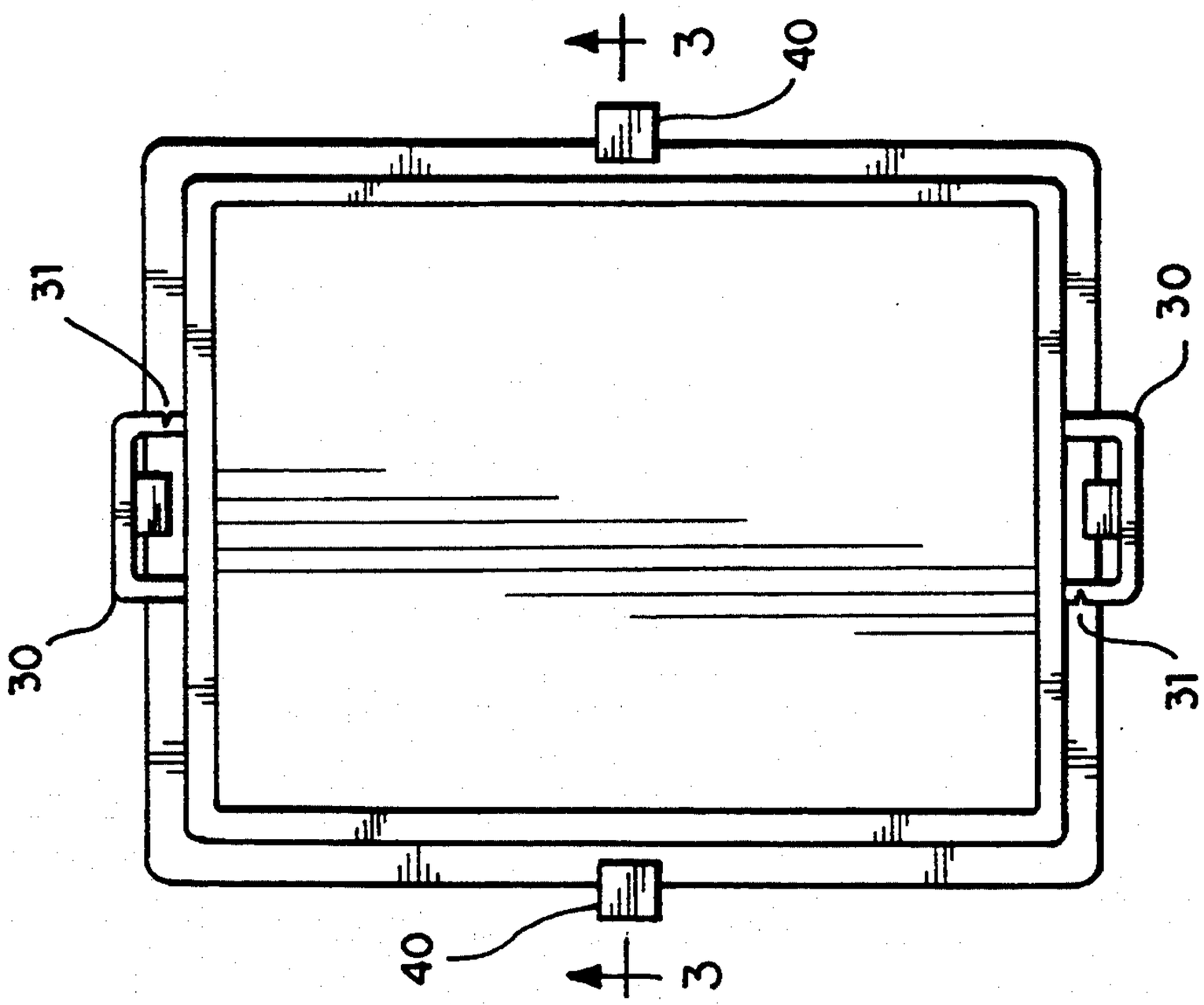


FIG. 5

TRASH RECEPTACLE WITH BAG RETAINER

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to the field of trash receptacles and in particular to receptacles that utilize liners.

2. Description of the Prior Art

An unpleasant aspect of daily life, whether at home or at work, is the accumulation of trash. Such accumulation is known to be especially acute in the kitchens of restaurants and other food serving establishments. Trash receptacles of various sizes and shapes are have been used to accumulate waste and are often lined with a disposable liner bag. The liner bags include a mouth or opening and are adapted to be received in the trash receptacle.

There are a number of problems associated with removal of a trash liner bag once it has been packed with trash, particularly for large trash receptacles. A full trash bag liner is often heavy and difficult to remove from the receptacle. The difficulty of removing the full liner is compounded by the vacuum formed in the receptacle as the bag is removed.

Additionally, there are a number of problems associated with cleaning the bottom of a trash receptacle which has been soiled due to leakage of the a liner. The height of a fairly tall trash receptacles make it difficult to thoroughly clean the bottom of the receptacle.

U.S. Pat. No. 4,691,841, issued to Howard Sussman on Sep. 8, 1987, discloses a Container For A Plastic Trash Bag. The container includes a polygonal body with an open top and a cap in the form of an open frame. Although the disclosed container allows for retaining a flexible plastic bag within the container, the disclosed structure fails to provide a convenient means for removal of a full trash bag.

U.S. Pat. Nos. 4,715,572 and 4,765,579, issued to Edward S. Robbins, III et al. on Dec. 29, 1987 and Aug. 23, 1988, respectively, both disclose a Trash Bag Retainer. The disclosed device is attachable to a trash receptacle and provides means for retaining a plastic bag liner in place within the receptacle. The disclosed device also provide a means for venting the air between the bag liner and the sidewalls of the receptacle. However, the disclosed device fails to provide a convenient means of removing a packed trash bag liner.

The following patents all disclose devices that retain plastic trash bag liners within a trash receptacle: U.S. Pat. Nos. 4,856,675, issued to Sam Palazzola on Aug. 15, 1989; U.S. Pat. No. 4,867,339, issued to William N. Hahn on Sep. 19, 1989; U.S. Pat. No. 4,892,224, issued to Donald J. Graham on Jan. 9, 1990; U.S. Pat. No. 4,913,308, issued to Russell D. Culbertson on Apr. 3, 1990; U.S. Pat. No. 4,925,056, issued to James E. McCoig on May 15, 1990; U.S. Pat. No. 5,028,022, issued to James C. Metcalf on Jul. 2, 1991; and Sweden Patent No. 180,070, issued to Johnsson on Dec. 21, 1962.

None of the above inventions and patents, taken either singly or in combination, is seen to describe the instant invention as claimed.

SUMMARY OF THE INVENTION

Accordingly, it is a principal object of the invention to provide a novel trash receptacle design that allows for removal of the upper portion of the receptacle to facilitate easy removal of a trash liner from the receptacle.

It is another object of the invention to provide a trash receptacle design which will allow for easy cleaning of the receptacle once a trash liner is removed.

It is an object of the invention to provide improved elements and arrangements thereof in an apparatus for the purposes described which is inexpensive, dependable and fully effective in accomplishing its intended purposes.

These and other objects of the present invention will become readily apparent upon further review of the following specification and drawings.

A trash receptacle according to the invention is provided having a sleeve member and a base member. The base member includes a floor with walls extending from the perimeter edge of the floor. The walls terminate to a top edge.

The sleeve member has an open top and open bottom body with tapered side walls which define an enclosed area. The side walls of the sleeve have both upper edges and bottom edges. At the bottom edge of the sleeve, the side walls have a cross section conforming to that of the base member. The bottom edge of the sleeve rests upon the top edge of the base.. The sleeve is detachably secured to the base.

With the sleeve attached to the base, a trash bag liner is placed in the receptacle. Once the trash bag liner is packed with trash and tied off, the sleeve is detached from the base and pulled up and over the full bag. The inversely tapered walls of the sleeve allow the sleeve to be easily pulled over a packed trash bag liner. Removal of the sleeve allows the user to lifted the trash bag out of the base and easily disposed of. Once detached from the sleeve, the base of the receptacle may then be cleaned by hand or placed in a dishwasher.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a trash receptacle with the sleeve secured to the base;

FIG. **2** is a perspective view of a trash receptacle with the with the sleeve detached from the base;

FIG. **3** is a view in section of the receptacle taken along the line **3—3** in FIG. **5**;

FIG. **4** is an enlarged scale, fragmentary cross-sectional view showing the latching mechanism for the receptacle;

FIG. **5** is plan view of a trash receptacle;

FIG. **6** is a perspective view of an alternate embodiment of a trash receptacle.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The trash receptacle I of the present invention, as shown in FIG. **1** and FIG. **2**, includes a base member **10** and a sleeve **20**. The base member **10** has an open topped body **11** made of a plastic material. The body **11** includes a floor **12**, four perimeter edges **13**, and base walls **14** extending upwardly from each of the four perimeter edges **13**. The base walls **14** define an enclosed area **16** having a rectangular cross section. Each of the base walls **14** terminate in a top edge **17**. In one preferred embodiment, the base unit has a height of 4 inches, a length of 20 inches and a width of 26 inches.

As shown in FIG. 2 and FIG. 3, the sleeve **20** has an open top and open bottom body **21** made of a plastic material. The body has an upper edge **22** with inversely tapered side walls **23** extending downwardly from the upper edge **22** to define an enclosed area The tapered side walls **23** allow the sleeve **20** to be easily pulled over a packed trash bag liner. The side walls **23** terminate in a bottom edge **25** which is arranged in conforming cross section to that of the top edge **17** of the base member **10**. The bottom edge **25** of the sleeve **20** rests on the top edge **17** of the base member **10**. As shown in FIG. **5**, two handles **30** may be attached to the sleeve. The handles **30** are attached to opposing side walls **23** of the sleeve **20**. Each of the handles **30** may include a slot **31** to facilitate retention of a trash bag liner within the receptacle **1**. In one preferred embodiment, the following dimensions are appropriate. The side walls **23** of the sleeve have a height of approximately 30 inches. The upper edge **22** of the sleeve **20** has a rectangular cross section measuring 18 inches in width and 24 inches in length. The bottom edge **25** of the sleeve **20** has a rectangular cross section measuring 20 inches in width and 26 inches in length.

The sleeve **20** is secured to the base member **10** by four latching mechanisms **40**. As shown in FIG. **4**, latching mechanism **40** includes a hook member **41**, and a pivot arm **42**. The pivot arm **42** has a first end **43** and a second end **44**, with the first end **43** pivotally attached to the a side wall **23** of the sleeve **10**. The pivot arm **42** is attached to the side wall **23** near the bottom edge **25** of the sleeve **10**. The second end **44** of the pivot arm **42** is pivotally connected to the hook member **41**. The hook member **41** fits into a depression **45** formed in the base wall **14** of the base member **10** and secures the sleeve member **20** to the base member **10**.

An alternative embodiment of the trash receptacle **60** is shown in FIG. **6**. The alternate embodiment is made up of a base member **70** and a sleeve **80**. The base member **70** has an open topped body **71** made of a plastic material. The body **71** includes a floor **72**, a perimeter edge **73**, and a base wall **74** extending upwardly from the perimeter edge **73**. The base wall **74** defines an enclosed area having a circular cross section. The base wall **74** terminates in a top edge **77**. The base unit may have a height of 4 inches, and a cross sectional diameter of 20 inches.

The sleeve **80** has an open top and open bottom body **81** made of a plastic material. The body **81** has an upper edge **82** with inversely tapered side walls **83** extending downwardly from the upper edge **82** to define an enclosed area having a circular cross section. The tapered side walls **83** allow the sleeve **80** to be easily pulled over a packed trash bag liner. The side walls **83** terminate in a bottom edge **85** which is arranged in conforming cross section to that of the top edge **77** of the base member **70**. The bottom edge **85** of the sleeve **80** rests on the top edge **77** of the base member **70**. Handles **90** may be attached to the sleeve **80**. The handles **90** of the alternative embodiment **60** are identical in structure to the handles **30** of the preferred embodiment **1**. The side walls **83** of the sleeve may have a height of approximately 30 inches, and the upper edge **82** of the sleeve **80** may have a circular cross section measuring **18** inches in diameter. The bottom edge **85** of the sleeve **80** has a circular cross section measuring 20 inches in diameter. The sleeve **80** is secured to the base member **70** by four latching mechanisms **100**.

It is to be understood that the present invention is limited to neither the preferred embodiment nor the alternative embodiment described above, but encompasses any and all embodiments within the scope of the following claims.

I claim:

1. A trash receptacle for use with a trash bag liner comprising:

a base member, said base member comprising a open topped body having a floor, a perimeter edge, and a base wall extending upwardly from said perimeter edge of said floor, said base wall terminating in a top edge;

a sleeve, said sleeve comprising a open top and open bottom body having an upper edge, inversely tapered side wall means extending downwardly from said upper edge to define an enclosed area, said side wall means terminating in a bottom edge, said bottom edge configured in conforming cross section to said top edge of said base member and adapted to fit on top of said base member, said sleeve having a handle means for lifting said sleeve from said base member;

a pivot arm having a first end and a second end, said second end being pivotally attached to said side wall means of said sleeve;

said base wall of said base member having a depression; and

a hook member securing said sleeve to said base member by engaging said depression, said hook member includes a hook base and a hook end for engaging said depression, said hook base is pivotally attached to said first end of said pivot arm, wherein said pivot arm permits said hook end to slide over said top edge of said base member.

2. The trash receptacle according to claim **1**, wherein said securing means comprises a latch.

3. The trash receptacle of claim **2**, further comprising means for retaining the trash bag liner within said trash receptacle.

4. The trash receptacle of claim **1**, said sleeve having an inverse, frusto-conical configuration.

5. A trash receptacle for use with a trash bag liner comprising:

a base member, said base member including a open top body having a floor, four perimeter edges, base walls extending upwardly from each of said four perimeter edges of said floor to define an area having a rectangular cross section, each of said base walls terminating in a top edge, and a depression formed in said base walls;

a sleeve, said sleeve comprising a open top and open bottom body having an upper edge, inversely side walls extending downwardly from said upper edge to define an enclosed area, said side walls terminating in a bottom edge, said bottom edge arranged in conforming cross section to said top edge of said base member and adapted to fit on top of said base member;

a first and second handle, said first handle attached to one of said four tapered side walls of said sleeve, said second handle attached to another of said four tapered side walls opposite said first handle, said first handle and said second handle having a first lateral side, a second lateral side opposite said first lateral side, and a first slot on said first lateral side of said first handle and a second slot on said second lateral side of said second handle, wherein said first

and second slots retain the trash bag liner within said receptacle;

a pivot arm having a first end and a second end, said second end being pivotally attached to said side wall of said sleeve; and

a hook member securing said sleeve to said base member by engaging said depression, said hook member includes a hook base and a hook end for engaging said depression, said hook base is pivotally attached to said first end of said pivot arm, wherein said pivot arm permits said hook end to slide over said top edge of said base member.

6. A trash receptacle for use with a trash bag liner comprising:

a base member, said base member including a open top body having a floor, a perimeter edge, a base wall extending from said perimeter edge to define an area having a circular cross section, said base wall terminating in a top edge, and a depression formed along said base wall;

a sleeve, said sleeve comprising a open top and open bottom body having an upper edge, inversely tapered side walls extending downwardly from said upper edge to define an enclosed area, said side walls terminating in a bottom edge, said bottom edge arranged in conforming cross section to said top edge of said base member and adapted to fit on top of said base member;

a plurality of handles;

a pivot arm having a first end and a second end, said second end being pivotally attached to said side wall of said sleeve; and

a hook member securing said sleeve to said base member by engaging said depression, said hook member includes a hook base and a hook end for engaging said depression, said hook base is pivotally attached to said first end of said pivot arm, wherein said pivot arm permits said hook end to slide over said top edge of said base member.

7. The trash receptacle of claim **6**, wherein each of said handles includes means for retaining the trash bag liner within said receptacle.

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